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United States Patent [19]**London**[11] **Patent Number:** **5,728,216**[45] **Date of Patent:** **Mar. 17, 1998**[54] **CONTINUOUS TUMBLE COATING AND BREADING APPARATUS**[75] Inventor: **Eugene J. London**, Sandusky, Ohio[73] Assignee: **Stein, Inc.**, Sandusky, Ohio[21] Appl. No.: **618,553**[22] Filed: **Mar. 20, 1996**[51] Int. Cl.⁶ **A23G 3/00**[52] U.S. Cl. **118/13**; 118/19; 118/30;
118/417; 118/423; 99/494; 198/715[58] **Field of Search** 118/13, 19, 30,
118/417, 423; 426/289, 292, 519; 99/494;
198/715, 384[56] **References Cited****U.S. PATENT DOCUMENTS**

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A machine for tumble-coating food or other product with a coating material comprises a product conveyor belt and a carrier conveyor system, which underlies and supports at least a portion of the upper run of the product conveyor belt in a tumble or processing zone. The product conveyor belt and the carrier conveyor system work in conjunction with one another to allow the product conveyor to sag between a pair of adjacent, spaced-apart support rollers on the carrier conveyor system, forming a tumble chamber. Products captured in the tumble chamber are coated with a charge of coating material introduced into the tumble chamber. The formed tumble chambers are moved along as the product conveyor is driven, and products within the chambers are continuously tumbled and moved within the coating material to achieve excellent coating or breading characteristics and appearance. For the breading or other coating of food products, the machine and methods of the invention can produce unique "homestyle" coating appearances and textures.

14 Claims, 3 Drawing Sheets